**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**On Appeal to the Board of Appeals and Interferences**

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|---|---|---|---|---|
| Appellant(s) | : | Hild et al. | Customer No. : | 28763 |
| Serial No. | : | 10/775,601 | Examiner : | Sameh Tawfik |
| Filed | : | February 20, 2004 | Group Art Unit: | 3721 |
| Title | : | FIBER-REINFORCED FILM PROCESSES AND FILMS | | |

# APPEAL BRIEF

I hereby certify that this paper is being electronically filed with the United States Patent and Trademark Office

January 23, 2009
Date of Deposit

PETER WITHSTANDLEY
Attorney Name

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Registration No.

Signature

January 23, 2009
Date of Signature

# TABLE OF CONTENTS

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# APPEAL BRIEF

**MAIL STOP APPEALS**
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Final Office Action dated August 25, 2008, Appellant filed on November 25, 2008, a Notice of Appeal from the final rejection of claims 20-42 and 71-76 contained in the Final Office Action. Appellant hereby submits, pursuant to 37 C.F.R. § 41.37, an Appeal Brief in support of the appeal of the rejections of pending claims 20-42 and 71-76.

## I. REAL PARTY IN INTEREST

The real party in interest is Pactiv Corporation, 1900 West Field Court, Lake Forest, Illinois 60045 ("Pactiv"). Pactiv is the assignee of the entire right, title, and interest in the present application by way of an Assignment by the inventors to Pactiv Corporation, with execution dates of June 25, 2004, June 29, 2004, and July 2, 2004, variously for the inventors, recorded on July 23, 2004 at Reel 015591 and Frame 0414.

## II. RELATED APPEALS AND INTERFERENCES

Appellant and Appellant's legal representatives are not aware of any appeals or interferences related to the present application which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## III. STATUS OF CLAIMS

Claims 20-42 and 71-76 are currently pending in this application. In the August 25, 2008, Final Office Action, claims 20-42 and 71-76 were finally rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,589,958 to Schrenk (hereinafter "Schrenk") in view of U.S. Patent No. 3,765,922 to Chisholm (hereinafter "Chisholm").

Appellant respectfully traverses the rejections of record, and further submits that claims 20-42 and 71-76 are in condition for allowance.

A copy of all pending claims is attached hereto in the Claims Appendix at page 22.

## IV. STATUS OF AMENDMENTS

Subsequent to the issuance of the Final Office Action dated August 25, 2008, no further amendments to the claims have been filed by Appellant.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

The present application relates generally to blown film processes for making a fiber-reinforced bag. (*See, e.g.*, Abstract). For convenience, reference is made herein to the specification of this application as published in U.S. Patent Application Publication No. 2005/0175805.

More specifically, independent claims 20 and 42 and the corresponding dependent claims 21-41 and 71-76 are directed to blown-film processes for making a fiber-reinforced bag comprising at least the following:

> providing at least one thermoplastic resin; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraphs [0025] to [0029]; paragraph [0080]);
>
> melting the at least one thermoplastic resin; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraphs [0079] to [0080]);
>
> extruding the at least one thermoplastic resin through an extension die to form a film bubble; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraphs [0078] to [0082]);
>
> providing a plurality of pre-cut fibers; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraphs [0037] to [0042]; paragraphs [0046] to [0049]; paragraph [0083]);
>
> distributing the plurality of pre-cut fibers in a fluidized stream inside of the film bubble; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraph [0049]; paragraphs [0084] to [0086]);
>
> collapsing the film bubble after distributing the plurality of pre-cut fibers so as to form a fiber-reinforced film, the fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer, and a plurality of fibers dispersed therebetween; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraph [0094]);

forming a first and second body panel from the fiber-reinforced film; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraphs [0069] to [0075]); and

closing the first and second body panels along two opposing sides and a bottom to form the fiber-reinforced bag. [exemplary support for this limitation may be found at, *e.g.*, specification, paragraphs [0069] to [0075]).

Independent claim 42 further comprises:

providing the plurality of pre-cut fibers with an electrical charge to assist in improving the affinity of the plurality of pre-cut fibers to the film bubble; [exemplary support for this limitation may be found at, *e.g.*, specification, paragraph [0007] and paragraph [0045]);

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The ground of rejection for review is:

(1) the final rejection of claims 20-42 and 71-76 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,589,958 to Schrenk (hereinafter "Schrenk") in view of U.S. Patent No. 3,765,922 to Chisholm (hereinafter "Chisholm");

Appellant respectfully requests review of all rejections of record.

## VII. ARGUMENT

### A. The Rejections Under 35 U.S.C. § 103(a) Based On Schrenk In View of Chisholm Should Be Reversed

#### 1. Summary of Rejection and References

Pending claims 20-42 and 71-76 were finally rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 3,589,958 to Schrenk (hereinafter "Schrenk") in view of U.S. Patent No. 3,765,922 to Chisholm (hereinafter "Chisholm"). Appellant respectfully traverses these rejections.

Independent claims 20 and 42 each recite a blown-film process for making a fiber-reinforced bag including, among other things, providing and melting at least one thermoplastic resin, and extruding the resin through a die to form a film bubble. As recited in independent claims 20 and 42, the process further comprises providing pre-cut fibers, and "distributing the plurality of pre-cut fibers in a fluidized stream inside of the bubble." The film bubble is collapsed after distributing the fibers therein so as to form a fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer and a plurality of fibers dispersed therebetween. As recited by independent claims 20 and 42, the process further includes forming first and second body panels from the fiber-reinforced film and closing those panels along two opposite sides and a bottom to form a fiber-reinforced bag.

Independent claim 42 also recites that the thermoplastic resin is selected from polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations of those polymers. Additionally, independent claim 42 recites providing the plurality of pre-cut fibers with an electrical charge to assist in improving the affinity of the fibers to the film bubble.

Dependent claims 21-41 and 71-76 recite additional features of the claimed process not disclosed in the prior art, as described in detail below.

In the Final Office Action dated August 25, 2008, the Examiner rejected claims 20-42, and 71-76 under 35 U.S.C. § 103(a) as being unpatentable over Schrenk in view of Chisholm, for the reasons set forth on pages 2-6 of the Office Action. Briefly, the Examiner contends that Schrenk discloses all of the limitations of independent claims 20 and 42, except the Examiner concedes that Schrenk does not disclose forming body panels from the fiber-reinforced sheets and closing the body panels to form a bag. The Examiner takes official notice that such steps are well known and available in the art. Additionally, the Examiner acknowledges that Schrenk does not disclose providing fibers in a pre-cut form and that Schrenk does not disclose distributing the plurality of pre-cut fibers in a "fluidized stream."

The Examiner relies upon Chisholm as allegedly disclosing a method similar to that of Schrenk but including providing a plurality of pre-cut fibers and distributing the pre-cut fibers in a fluidized stream. The Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of making a fiber web of Schrenk by substituting the filament of Schrenk with pre-cut fibers as allegedly suggested by Chisholm and further distributing the pre-cut fibers by fluidizing the fibers in a fluidized stream also as allegedly suggested by Chisholm, in order to easily control the desired thickness of the web.

Dependent claims 21-41, 71, 72, 75, and 76 were rejected as allegedly being disclosed by Schrenk, merely being design choice, or otherwise based upon official notice.

Appellant respectfully traverses the rejection of independent claims 20 and 42 and submits that neither Schrenk nor Chisholm, alone or in combination, discloses or suggests the claimed blown-film process for making a fiber-reinforced bag as recited in independent claims 20 and 42, or claims 21-41, and 71-76 depending therefrom.

**2. The Examiner Has Not Met The Burden of Establishing A *Prima Facie* Case of Obviousness Under 35 U.S.C. § 103(a)**

"To establish a prima facie case of obviousness ... there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combined) must teach or suggest all the claim limitations." MPEP § 2143.

To begin, Appellant respectfully submits that neither Schrenk nor Chisholm, alone or in combination, is even directed to a process of making a bag, let alone discloses all of the features of the claimed invention. Indeed, and as noted below, Chisholm is specifically directed to the process of forming flocked articles such as "flock carpets or fabric supported apparel materials." (col. 2, lines 16-17). One of skill in the art of forming bags would not have been motivated by Chisholm to modify the process of Schrenk.

Schrenk is directed to a method for making a filament reinforced sheet by tube extrusion. The method of Schrenk employs an annular die adapted to extrude a tube that defines an inner layer of synthetic material. (col. 2, lines 14-16). The apparatus of Schrenk includes a filament dispenser 18 attached to the annular die and located within the extruded tube of synthetic material. The dispenser is rotatably mounted to the annular die and is configured to discharge a

filament or yarn. The "yarn is discharged from a discharge opening 34." (col. 2, lines 39-40). The apparatus of Schrenk further employs a cutter assembly mounted adjacent to the dispenser and including "a plurality of cutting means or blades." (col. 2, line 48). "A roving or filamentary reinforcing material ... is disposed within the [tube] body." (col. 3, lines 18-20). "[T]he cutters or blades 42 [can] sever the reinforcing filament into desired lengths." (col. 3, lines 23-24). "The length of such strands will depend on the relative rate of feed of the reinforcement, the speed of rotation of the distributor and the angular placement of the blades." (col. 3, lines 73-75).

By contrast, Chisholm is directed to methods of forming flocked articles, "such as flock carpets or fabric supported apparel materials." (col. 2, lines 16-17). The method of Chisholm involves "centrifugally extruding thermoplastic strands or filaments and impinging them on a substrate base immediately after they have been freed from an extrusion die." (col. 1, lines 51-54). The method of Chisholm requires centrifugal extrusion in order to generate sufficient velocity for the filaments to penetrate a substrate base. Chisholm states "[b]y forming a flocked article wherein the strands have penetrated into the matrix of the substrate base, better stand-up characteristics of the strands or filaments can be achieved." (col. 2, lines 33-36). The process and apparatus described in Chisholm to create flocked articles includes an extruder for extruding thermoplastic substrate base. "Immediately after the base 14 has been formed and is still in a heat softened condition, rapidly moving strands or filaments 19 of a thermoplastic organic resinous material are impinged on the base." (col. 4, lines 3-7). Following impinging of the filaments into the substrate, the flocked substrate base is "advanced through a cooling means 16 to solidify the strands or filaments." (col. 4, lines 18-20).

Chisholm describes a second embodiment of apparatus for creating flocked articles in which "air is introduced through the extrusion head 33 to form a bubble in the advance base tube 34." (col. 4, lines 29-33). "Immediately after the base tube 34 has been formed and is still in a heat softened condition, rapidly moving strands or filaments ... are impinged on the inside surface of the base tube." (col. 4, lines 35-39). "The strands or filaments 31 are formed by a centrifugal extruder ... which extends through the extrusion head 33 into the interior of the base tube 34." (col. 4, lines 40-43).

As such, Chisholm is clearly directed to a process for forming flocked articles with strands of thermoplastic organic resinous material puncturing into and standing up from a substrate base. A process for forming such a flocked article with upright strands would not be suitable for or even analogous to the process of forming a filament reinforced sheet as disclosed by Schrenk, let alone that of the present application.

Appellant respectfully submits that neither Schrenk nor Chisholm provides motivation to modify the process of Schrenk to arrive at the process as claimed. The system of Chisholm is directed to solving the problem of increasing adhesion of flocking filaments to a substrate in an upright fashion and minimizing the wasted flocking material. Although this may be of particular use with regard to conventional flock articles such as carpets and other fabrics, there is no suggestion of or motivation for using the system and method of Chisholm for purposes of making fiber-reinforced bags.

Without such motivation, Appellant respectfully submits that the claimed invention is not obvious based upon Schrenk in view of Chisholm. For at least this reason, Appellant

respectfully submits that the Examiner has not established a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Furthermore, even assuming *arguendo* that motivation to combine Schrenk and Chisholm did exist, there is no reasonable expectation of success. Under *KSR International Co. v. Teleflex Inc.*, 127 U.S. 1727, L.Ed.2d 705, the combination of prior art elements is required to provide predictable results to support a finding of obviousness. Appellant submits that, even if all of the claim features were disclosed in Schrenk and Chisholm, there is no suggestion or indication that combining the references would yield predictable results. As discussed above, Schrenk is directed to a method for making a filament reinforced sheet by tube extrusion. The system of Chisholm is drawn to solving the problem of increasing adhesion of flocking filaments to a substrate in an upright fashion and minimizing the wasted flocking material. This is of particular use with regard to conventional flock articles such as carpets and other fabrics. Appellant submits that one of ordinary skill in the art would not combine Schrenk and Chisholm because, among other things, the results of combining Schrenk's method of making a fiber web with Chisholm's method of flocking a substrate would not be predictable.

Furthermore, the pending claims are directed to a blown-film process for making a fiber-reinforced bag. Preferably, the fiber-reinforced bag has desirably high tear strength, tensile strength, and puncture-resistant properties. As disclosed in the pending application and as claimed, it is desirable that the fibers be dispersed in a randomized pattern, which is affected by distributing the fibers in a fluidized stream. Appellant respectfully submits that both Schrenk and Chisholm incorporate centrifugal extrusion of fibers which would introduce fibers in a generally oriented manner.

Assuming *arguendo* that motivation to combine the references were found in Chisholm and that the results of such a combination were predictable, Appellant respectfully submits that, Schrenk, alone and in combination with Chisholm, do not even disclose or suggest each and every claimed feature of the pending claims.

For example, Appellant respectfully submits that neither Schrenk nor Chisholm disclose or suggest distributing a plurality of pre-cut fibers in a fluidized stream inside a film bubble as recited in independent claims 20 and 42. As described in the present application, for example at paragraphs [0084]-[0086], the fibers are separated and fluidized, for example in an air stream, in order to be placed in a roughly even distribution to result in a better reinforced film. In order to attain such a distribution, the specification notes that the fibers can be distributed by an "air conveying system that blows the plurality of fibers towards the inner surface of the film bubble or tube." (See e.g., paragraph [0086]).

Indeed, the Examiner even acknowledges and concedes that Schrenk does not disclose such a feature. Rather, Schrenk discloses a spinning extruder that deposits a filament or filaments onto the inner surface of a film bubble by the centrifugal force created by the spinning extruder. The Examiner therefore cites Chisholm for such a feature. However, and similar to Schrenk, Chisholm discloses that "[t]he strands or filaments 19 are formed by centrifugal extrusion in a centrifugal extruder 15 ... [and] [i]n order to achieve full width coverage of the strands or filaments 19 on the base 14, the centrifugal extruder 15 is traversed from one side to the other of the base 14." (See Chisholm, col. 4, lines 7-14). Appellant respectfully submits that neither Schrenk nor Chisholm disclose or suggest distributing a plurality of pre-cut fibers in a

fluidized stream inside of the film bubble as recited in independent claims 20 and 42 of the present application.

During the telephone interview of June 26, 2008, the Examiner pointed to Figure 3 of Chisholm as showing the use of blown air to aid in distributing fibers to the tube and stated that the inclusion of blown air "make[s] it fluidized." As discussed during the interview, Appellant respectfully disagrees and submits that Chisholm specifies that "[a]s shown in FIG. 3, air is introduced through the extrusion head 33 to form a bubble in the advance base tube 34." (emphasis added, col. 4, lines 33-35). By contrast, Chisholm states that "rapidly moving strands or filaments ... are impinged on the inside surface of the base tube 34. The strands or filaments 31 are formed by a centrifugal extruder." (col. 4, lines 37-40). Appellant respectfully submits that, according to Fig. 3 of Chisholm, the air that is required to form a bubble is introduced in a direction perpendicular to the direction in which the centrifugal extrusion of strands or filaments are rapidly fired towards the inner surface of the bubble. Therefore, Appellant respectfully submits that, contrary to the use of a fluidized stream to distribute fibers, the force in which the filaments are ejected from the centrifugal extruder must overcome the perpendicular air flow specified by Chisholm.

Additionally, Appellant submits that, as noted by the Examiner, Schrenk does not even disclose or suggest introducing a plurality of pre-cut fibers inside of a film bubble. Rather, Schrenk discloses dispensing a filament which may be severed into shorter lengths as it is dispensed. This results in a serial dispensing of fibers and not introduction of a plurality of pre-cut fibers. The Examiner relies upon Chisholm as disclosing introduction of a plurality of pre-cut fibers and cites to FIGS. 1 and 3 of Chisholm. However, Appellant respectfully submits that,

as discussed above, FIGS. 1 and 3 of Chisholm disclose that "[t]he strands or filaments 19 are formed by centrifugal extrusion in a centrifugal extruder 15 ... and freed therefrom by a knife 20." (See Chisholm, col. 4, lines 7-10). As such, Appellant respectfully submits that neither Schrenk nor Chisholm, alone or in combination, discloses or suggests distributing a plurality of pre-cut fibers in a fluidized stream inside of a film bubble as recited in independent claims 20 and 42.

Finally, and as acknowledged by the Examiner, Schrenk and Chisholm do not disclose the steps of forming a first and second body panel from the fiber reinforced film; nor closing the first and second body panels along two opposing sides or folding the film to form one of the opposing sides of the bag nor folding the web to form a bottom to form the fiber-reinforced bag. See page 3 of the Final Office Action. The Examiner therefore relies upon "official notice" that such steps of forming bags are old, well known, and available in the art and that it would have been obvious to one of skill in the art at the time of the invention to modify the combined process of Schrenk and Chisholm in order to form a fiber-reinforced bag.

Furthermore, and with respect to independent claim 42 and dependent claim 32, the Examiner additionally acknowledges that neither Schrenk nor Chisholm discloses that the fibers are electrically charged. The Examiner takes "official notice" that electrically charging fibers to increase their affinity to a surface is well known in the art and that it would have been obvious to one of skill in the art at the time of the invention to have modified Schrenk's process by electrically charging fibers in order to improve quality and toughness.

In accordance with MPEP § 2144.03, Appellant has respectfully traversed the Examiner's official notice that providing an electrical charge to pre-cut fibers and the steps of forming fiber

reinforced bags from a fiber-reinforced film as claimed are old, well known, and available in the art. (See, Amendment dated July 11, 2008). Appellant respectfully submits that, according to MPEP § 2144.03 "assertions of specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art." Appellant respectfully submits that, according to MPEP § 2144.03, following a traversal of an Examiner's assertion of official notice "the examiner must provide documentary evidence in the next Office Action if the rejection is to be maintained." No such additional evidence has been produced by the Examiner.

Appellant therefore respectfully submits that neither Schrenk nor Chisholm, alone or in combination, disclose or suggest each and every feature of the process as recited in independent claims 20 and 42 of the present application.

In view of the above, Appellant respectfully submits that a person having ordinary skill in the art could not have combined the disclosures of Schrenk and Chisholm in such a way to encompass the rejected claims, nor would the benefits or results have been predictable. For at least these reasons, Appellant submits that the Examiner has not met the burden of establishing a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Therefore, Appellant respectfully submits that independent claims 20 and 42 are in condition for allowance. Similarly, claims 21-41, 71, 73, and 75 are allowable at least for depending from claim 20 and claims 72, 74, and 76 are allowable at least for depending from claim 42.

**Dependent Claims**

Appellant respectfully submits that claims 21-41, 71, 73, and 75 depend from independent claim 20 and are in condition for allowance at least for the reasons discussed herein above. Likewise, Appellant respectfully submits that claims 72, 74, and 76 depend from independent claim 42 and are in condition for allowance at least for the reasons discussed herein above.

Furthermore, since the dependent claims disclose additional features not disclosed by Schrenk or Chisholm taken alone or in combination, Appellant submits that claims 21-41 and 71-76 are non-obvious based upon Schrenk in view of Chisholm. For example, claims 21-23 recite additional details in forming a bag from fiber-reinforced film; claims 24-26 recite particular polymers and blends of polymers for the thermoplastic resin; claims 27-30 recite particular dimensions for the film; claim 31 recites a particular type of extension die; claim 32 recites electrically charging the fibers; claims 33 and 34 recite the fibers adhering to an inner surface of the bubble; claims 35 and 36 recite particular extruders; claims 37-41 recite particular materials and properties of the fibers; claims 71 and 72 recite a fiber layer sufficiently thick such that the first and second thermoplastic layers are substantially not in contact; claims 73 and 74 recite that the plurality of fibers are dispersed in a randomized pattern; and claims 75 and 76 recite electrically charging the film bubble to increase the affinity of the pre-cut fibers to the inside of the film bubble.

In particular, Appellant respectfully submits that neither Schrenk nor Chisholm discloses or suggests the plurality of the fibers being electrically charged to assist in improving the affinity of the plurality of fibers to the film bubble as recited by dependent claims 32, 75, and 76.

Furthermore, Appellant submits that it would not have been obvious to one of skill in the art to modify Schrenk or Chisholm to include charging the fibers because both Schrenk and Chisholm employ centrifugal extruders that throw fibers or filaments directly towards the film surface as opposed to fluidizing the fibers as disclosed in the present application. As such, there is no apparent need for charged particles to increase affinity.

In view of the above, Appellant respectfully submits that a person having ordinary skill in the art could not have combined the disclosures of Schrenk and Chisholm in such a way that encompassed the rejected claim, nor would the benefits or results have been predictable.

Appellant respectfully submits that dependent claims 32, 75, and 76 are allowable over Schrenk and Chisholm either alone or in combination.

Additionally, Appellant respectfully submits that neither Schrenk nor Chisholm discloses or suggests disposing the plurality of fibers in a fiber layer such that the first thermoplastic layer and the second thermoplastic layer are substantially not in contact as recited by dependent claims 71 and 72. Appellant respectfully submits that because Schrenk employs a centrifugal extruder, which deposits a filament or filaments on the inner surface of a film bubble in a serial manner, it would not be possible to deposit sufficient fiber on the inner surface of the film bubble in order to create a fiber layer such that the first and second thermoplastic layers are substantially not in contact. Additionally, Chisholm does not disclose or suggest a second thermoplastic layer. Rather, in Chisholm, fibers are distributed on a film surface by a centrifugal extruder and the film bubble is then "slit longitudinally to appear therefrom as a conventional web-like material." (See Chisholm, col. 5, lines 4-5).

In view of the above, Appellant respectfully submits that a person having ordinary skill in the art could not have combined the disclosures of Schrenk and Chisholm in such a way that encompassed the rejected claims, nor would the benefits or results have been predictable.

Appellant respectfully submits that dependent claims 71 and 72 are allowable over Schrenk and Chisholm either alone or in combination.

Also, claims 73 and 74 would not have been obvious over Schrenk and Chisholm, alone or in combination. For example, the centrifugal distribution of filaments relied upon by Schrenk and Chisholm would inherently result in uniform placement rather than a randomized pattern (See FIGS. 4-6 of Chisholm). As such, Appellant respectfully submits that a person having ordinary skill in the art could not have combined the disclosures of Schenk and Chisholm in such a way that encompassed the rejected claims, nor would the benefits or results have been predictable.

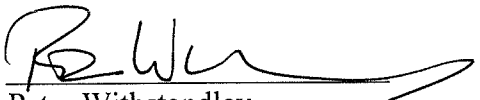
At least for the reasons above, Applicant respectfully submits that claims 20-42 and 71-76 are in condition for allowance.

**B. Conclusion**

Accordingly, the cited references, whether alone or in combination, fail to anticipate or render unpatentable the claims of the present invention. Reversal of the Examiner's rejections of the claims and timely allowance of this application is therefore respectfully requested.

Respectfully submitted,

Dated: January 23, 2009

By: 

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## VIII. CLAIMS APPENDIX

The following claims are the subject of this appeal:

1. (Canceled) A blown-film process for making a fiber-reinforced film, comprising:

providing at least one thermoplastic resin;

melting the at least one thermoplastic resin;

extruding the at least one thermoplastic resin through an extension die to form a film bubble;

introducing a plurality of fibers inside of the film bubble;

distributing the fibers inside of the film bubble; and

collapsing the film bubble after introducing the plurality of fibers so as to form a fiber-reinforced film, the fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer, and a plurality of fibers dispersed therebetween.

2. (Canceled) The process of claim 1, wherein the at least one thermoplastic resin is selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof.

3. (Canceled) The process of claim 1, wherein the at least one thermoplastic resin is a blend of thermoplastic resins.

4. (Canceled) The process of claim 3, wherein the at least one thermoplastic resin comprises a blend of a polyolefin and a cyclic olefin copolymer.

5. (Canceled) The process of claim 1, wherein the total thickness of the first and second thermoplastic layers is from about 0.2 mil to about 2.0 mils.

6. (Canceled) The process of claim 5, wherein the total thickness of the first and second thermoplastic layers is from about 0.4 mil to about 1.0 mil.

7. (Canceled) The process of claim 1, wherein the thickness of the fiber-reinforced film is from about 0.8 mil to about 2.0 mils.

8. (Canceled) The process of claim 7, wherein the thickness of the fiber-reinforced film is from about 1.0 mil to about 1.6 mils.

9. (Canceled) The process of claim 1, wherein the extension die is an annular die.

10. (Canceled) The process of claim 1, wherein the plurality of fibers is electrically charged to assist in improving the affinity of the plurality of fibers to the film bubble.

11. (Canceled) The process of claim 1, wherein the plurality of fibers contacts an inner surface of the film bubble.

12. (Canceled) The process of claim 1, wherein the plurality of fibers adheres to an inner surface of the film bubble.

13. (Canceled) The process of claim 1, wherein the extruding is performed using at least one horizontal extruder.

14. (Canceled) The process of claim 1, wherein the extruding is performed using at least one vertical extruder.

15. (Canceled) The process of claim 1, wherein the plurality of fibers is a thermoplastic material.

16. (Canceled) The process of claim 15, wherein the plurality of fibers is formed from at least two thermoplastic materials.

17. (Canceled) The process of claim 16, wherein the plurality of fibers is formed from a polyolefin and a cyclic olefin copolymer.

18. (Canceled) The process of claim 1, wherein the plurality of fibers comprises at least two layers.

19. (Canceled) The process of claim 1, wherein the plurality of fibers comprises an additive that assists in adhering the plurality of fibers to an inner surface of the film bubble.

20. (Previously Presented) A blown-film process for making a fiber-reinforced bag, comprising:

providing at least one thermoplastic resin;

melting the at least one thermoplastic resin;

extruding the at least one thermoplastic resin through an extension die to form a film bubble;

providing a plurality of pre-cut fibers;

distributing the plurality of pre-cut fibers in a fluidized stream inside of the film bubble;

collapsing the film bubble after distributing the plurality of pre-cut fibers so as to form a fiber-reinforced film, the fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer, and a plurality of fibers dispersed therebetween;

forming a first and a second body panel from the fiber-reinforced film; and

closing the first and second body panels along two opposing sides and a bottom to form the fiber-reinforced bag.

21. (Original) The process of claim 20, wherein the fiber-reinforced film is folded to form a bottom.

22. (Original) The process of claim 20, wherein the fiber-reinforced film is folded to form one of the opposing sides of the bag.

23. (Original) The process of claim 20, wherein the first and second body panels are respectively formed from two distinct portions of fiber-reinforced film.

24. (Original) The process of claim 20, wherein the at least one thermoplastic resin is selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof.

25. (Original) The process of claim 20, wherein the at least one thermoplastic resin is a blend of thermoplastic resins.

26. (Original) The process of claim 25, wherein the at least one thermoplastic resin comprises a blend of a polyolefin and a cyclic olefin copolymer.

27. (Original) The process of claim 20, wherein the total thickness of the first and second thermoplastic layers is from about 0.2 mil to about 2.0 mils.

28. (Original) The process of claim 27, wherein the total thickness of the first and second thermoplastic layers is from about 0.4 mil to about 1.0 mil.

29. (Original) The process of claim 20, wherein the thickness of the fiber-reinforced film is from about 0.8 mil to about 2.0 mils.

30. (Original) The process of claim 29, wherein the thickness of the fiber-reinforced film is from about 1.0 mil to about 1.6 mils.

31. (Original) The process of claim 20, wherein the extension die is an annular die.

32. (Original) The process of claim 20, wherein the plurality of fibers is electrically charged to assist in improving the affinity of the plurality of fibers to the film bubble.

33. (Original) The process of claim 20, wherein the plurality of fibers contacts an inner surface of the film bubble.

34. (Original) The process of claim 20, wherein the plurality of fibers adheres to an inner surface of the film bubble.

35. (Original) The process of claim 20, wherein the extruding is performed using at least one horizontal extruder.

36. (Original) The process of claim 20, wherein the extruding is performed using at least one vertical extruder.

37. (Original) The process of claim 20, wherein the plurality of fibers is a thermoplastic material.

38. (Original) The process of claim 20, wherein the plurality of fibers is formed from at least two thermoplastic materials.

39. (Original) The process of claim 38, wherein the plurality of fibers is formed from a polyolefin and a cyclic olefin copolymer.

40. (Original) The process of claim 20, wherein the plurality of fibers comprises at least two layers.

41. (Original) The process of claim 20, wherein the plurality of fibers comprises an additive that assists in adhering the plurality of fibers to an inner surface of the film bubble.

42. (Previously Presented) A blown-film process for making a fiber-reinforced bag, comprising:

providing at least one thermoplastic resin being selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof,

melting the at least one thermoplastic resin;

extruding the at least one thermoplastic resin through an extension die to form a film bubble;

providing a plurality of pre-cut fibers;

providing the plurality of pre-cut fibers with an electrical charge to assist in improving the affinity of the plurality of pre-cut fibers to the film bubble;

distributing the plurality of pre-cut fibers in a fluidized stream inside of the film bubble such that the plurality of pre-cut fibers contacts an inner surface of the film bubble;

collapsing the film bubble after distributing the plurality of pre-cut fibers so as to form a fiber-reinforced film, the fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer, and a plurality of fibers dispersed therebetween, the total thickness of the first and second thermoplastic layers being from about 0.4 mil to about 1.0 mil.;

forming a first and a second body panel from the fiber-reinforced film; and

closing the first and second body panels along two opposing sides and a bottom to form the bag.

43. (Canceled) A cast-film process for making a fiber-reinforced film, comprising:

providing at least a first thermoplastic resin;

melting the at least first thermoplastic resin;

extruding the at least first thermoplastic resin through a first extension die to form a first thermoplastic film;

providing at least a second thermoplastic resin;

melting the at least second thermoplastic resin;

extruding the at least second thermoplastic resin through a second extension die to form a second thermoplastic film;

transporting the first and second thermoplastic films along respective casting rollers; and

introducing a plurality of fibers between the first and second thermoplastic films so as to form a fiber-reinforced film, the fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer, and a plurality of fibers dispersed therebetween.

44. (Canceled) The process of claim 43, wherein the plurality of fibers is in a continuous sheet.

45. (Canceled) The process of claim 43, wherein the first thermoplastic resin and the second thermoplastic resin are the same.

46. (Canceled) The process of claim 43, wherein the at least one thermoplastic resin is selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof.

47. (Canceled) The process of claim 43, wherein the plurality of fibers is a thermoplastic material.

48. (Canceled) A cast-film process for making a fiber-reinforced film, comprising:

providing at least a first thermoplastic resin;

melting the at least first thermoplastic resin;

extruding the at least first thermoplastic resin through a first extension die to form a first thermoplastic film;

providing at least a second thermoplastic resin;

melting the at least second thermoplastic resin;

extruding the at least second thermoplastic resin through a second extension die to form a second thermoplastic film;

transporting the first and second thermoplastic films along respective casting rollers;

introducing a plurality of fibers between the first and second thermoplastic films so as to form a fiber-reinforced film, the fiber-reinforced film having a first thermoplastic layer, a second thermoplastic layer, and a plurality of fibers dispersed therebetween;

forming a first and a second body panel from the fiber-reinforced film; and

closing the first and second body panels along two opposing sides and a bottom to form the bag.

49. (Canceled) The process of claim 48, wherein the plurality of fibers is in a continuous sheet.

50. (Canceled) The process of claim 48, wherein the first thermoplastic resin and the second thermoplastic resin are the same.

51. (Canceled) The process of claim 48, wherein the at least one thermoplastic resin is selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof.

52. (Canceled) The process of claim 48, wherein the plurality of fibers is a thermoplastic material.

53. (Canceled) A fiber-reinforced film comprising at least two layers and a plurality of fibers therebetween, the first layer being made of at least a first thermoplastic resin and the second layer being made of at least a second thermoplastic resin, wherein the film has a MD tear of greater than 250 g as measured in accordance with ASTM D 1922, a MD tensile strength of greater than about 800 as measured in accordance with ASTM D 882, and a puncture resistance of greater than 120 g as measured in accordance with ASTM D 1709 and the basis weight of the plurality of fibers is less than about 10 $g/m^2$.

54. (Canceled) The film of claim 53, wherein the basis weight of the plurality of fibers is less than about 5 $g/m^2$.

55. (Canceled) The film of claim 53, wherein the first and second thermoplastic resins are selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof.

56. (Canceled) The film of claim 53, wherein the first and second thermoplastic resins are a blend of thermoplastic resins.

57. (Canceled) The film of claim 56, wherein the first and second thermoplastic resins comprise a blend of polyolefin and a cyclic olefin copolymer.

58. (Canceled) The film of claim 53, wherein the total thickness of the first and second thermoplastic layers is from about 0.2 mil to about 2.0 mils.

59. (Canceled) The film of claim 58, wherein the total thickness of the first and second thermoplastic layers is from about 0.4 mil to about 1.0 mil.

60. (Canceled) The film of claim 53, wherein the thickness of the fiber-reinforced film is from about 0.8 mil to about 2.0 mils.

61. (Canceled) The film of claim 60, wherein the thickness of the fiber-reinforced film is from about 1.0 mil to about 1.6 mils.

62. (Canceled) A fiber-reinforced bag comprising first and second opposing body panels that are closed along two opposing sides and a bottom, each of the first and second opposing body panels comprising a fiber-reinforced film, the fiber-reinforced film comprising at least two layers and a plurality of fibers therebetween, the first layer being made of at least a first thermoplastic resin and the second layer being made of at least a second thermoplastic resin, wherein the film has a MD tear of greater than 250 g as measured in accordance with ASTM D 1922, a MD tensile strength of greater than about 800 as measured in accordance with ASTM D 882, and a puncture resistance of greater than 120 g as measured in accordance with ASTM D 1709 and the basis weight of the plurality of fibers is less than about 10 $g/m^2$.

63. (Canceled) The bag of claim 62, wherein the basis weight of the plurality of fibers is less than about 5 $g/m^2$.

64. (Canceled) The bag of claim 62, wherein the first and second thermoplastic resins are selected from the group consisting of polyolefins, polyesters, nylons, alkenyl aromatic polymers, polyvinyl chlorides, and combinations thereof.

65. (Canceled) The bag of claim 62, wherein the first and second thermoplastic resins are a blend of thermoplastic resins.

66. (Canceled) The bag of claim 65, wherein the first and second thermoplastic resins comprise a blend of polyolefin and a cyclic olefin copolymer.

67. (Canceled) The bag of claim 62, wherein the total thickness of the first and second thermoplastic layers is from about 0.2 mil to about 2.0 mils.

68. (Canceled) The bag of claim 67, wherein the total thickness of the first and second thermoplastic layers is from about 0.4 mil to about 1.0 mil.

69. (Canceled) The bag of claim 62, wherein the thickness of the fiber-reinforced film is from about 0.8 mil to about 2.0 mils.

70. (Canceled) The bag of claim 77, wherein the thickness of the fiber-reinforced film is from about 1.0 mil to about 1.6 mils.

71. (Previously Presented) The process of claim 20, wherein the plurality of fibers dispersed between the first thermoplastic layer and the second thermoplastic layer defining a fiber layer in the fiber-reinforced film such that the first thermoplastic layer and the second thermoplastic layer are substantially not in contact.

72. (Previously Presented) The process of claim 42, wherein the plurality of fibers dispersed between the first thermoplastic layer and the second thermoplastic layer defining a fiber layer in the fiber-reinforced film such that the first thermoplastic layer and the second thermoplastic layer are substantially not in contact.

73. (Previously Presented) The process of claim 20, wherein the plurality of fibers dispersed between the first thermoplastic layer and the second thermoplastic layer are dispersed in a randomized pattern.

74. (Previously Presented) The process of claim 42, wherein the plurality of fibers dispersed between the first thermoplastic layer and the second thermoplastic layer are dispersed in a randomized pattern.

75. (Previously Presented) The process of claim 32, wherein the film bubble is electrically charged to assist in improving the affinity of the plurality of fibers to the film bubble.

76. (Previously Presented) The process of claim 42, wherein the film bubble is electrically charged to assist in improving the affinity of the plurality of fibers to the film bubble.

## IX. EVIDENCE APPENDIX

None.

## X. RELATED PROCEEDINGS APPENDIX

None.